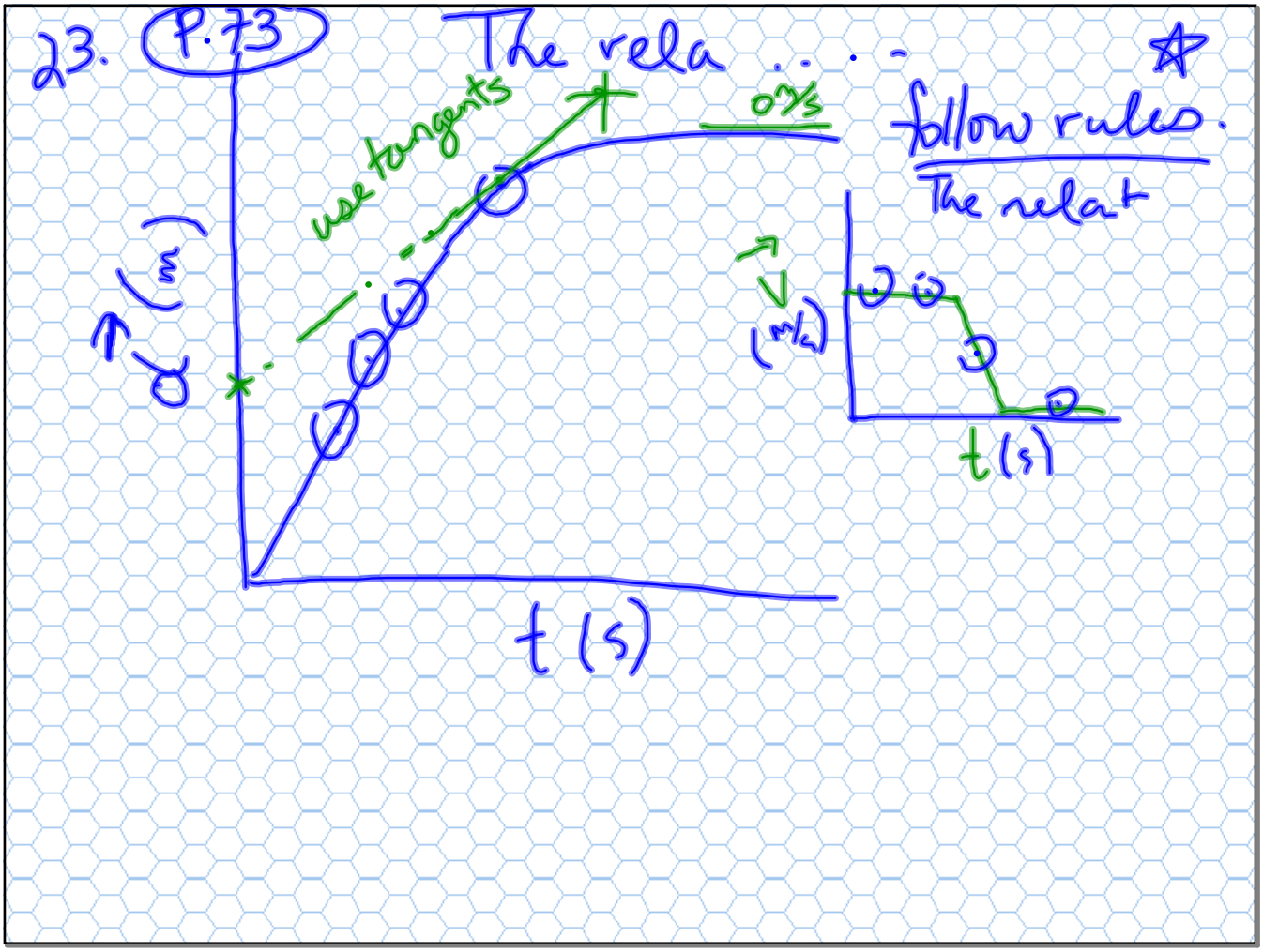
23. P.73
The rela
0 m/s
use tangents
follow rules.
The relat
x (m)
t (s)
v (m/s)
t (s)

25. $V_{ave} = \left(\frac{V_f + V_i}{2}\right)$ P. 71-73

recall from this formula

$d = \left(\frac{V_f + V_i}{2}\right)t$

27.

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P. 115 # 13. a)

$V_i = 0\ m/s$

$d = 5.0 \times 10^1\ m = 50\ m$ ← 2 sig. figs.

$t = 6.0\ s$

$V_f =$

leave it alone

$$d = \left(\frac{V_f + V_i}{2}\right) t$$

$$\frac{2d}{t} = \frac{V_f + V_i}{\cancel{2}}$$

$$\frac{2d}{t} - V_i = V_f$$

$$\frac{2(50\ m)}{6.0\ s} - 0\ m/s = V_f$$

$$17\ m/s = V_f$$

b) $V_i = 0\ m/s$

$d = 50\ m$

$t = 6.0\ m$

$a = ?$

$d = \cancel{V_i t} + \frac{1}{2}at^2$

$\frac{d}{\frac{1}{2}t^2} = a = \frac{50\ m}{\frac{1}{2}(6.0\ s)^2} = 2.8\ m/s^2$

$V_f = V_i + at$ ✡ use if needed.

16. $a = -3.2\ m/s^2$

$t = 8.0\ s$

$V_f = -28.0\ m/s$

$d = ?$

$V_i = -2.4\ m/s$

$V_f = V_i + at$ ✡ similar to on test

$V_i = V_f - at$

$= -28.0\ m/s - (-3.2\ m/s^2)(8.0\ s)$

$= -28.0\ m/s + +25.6\ m/s$

$= -2.4\ m/s$

$d = \left(\frac{V_f + V_i}{2}\right)t$

$= \left(\frac{(-28.0\ m/s + -2.4\ m/s)}{2}\right)8.0\ s$

$= (-15.2\ m/s)(8.0\ s)$

$= -122\ m$